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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,369	12/17/2004	Christoph Schwan	740105-108	8185

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EXAMINER

PAINTER, BRANON C

ART UNIT	PAPER NUMBER
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3633

NOTIFICATION DATE	DELIVERY MODE
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07/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/518,369

Applicant(s)

SCHWAN, CHRISTOPH

Examiner

BRANON C. PAINTER

Art Unit

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 10, 12, 13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 12, 13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

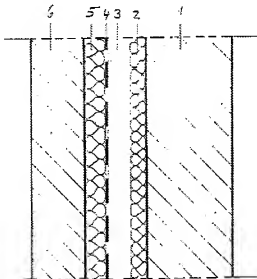
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Saalfeld (English translation of DE 3,530,973 A1).
3. Regarding claim 17, Saalfeld discloses a construction element (6) provided with a layer of metal (4) which is reflective of heat radiation on their side facing the rear brickwork.

Fig. 1



Reproduced from Saalfeld

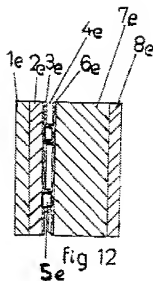
4. Regarding claim 18, Saalfeld discloses constructional elements of bricks ("masonry" 1 & 6).
5. Regarding claim 19, Saalfeld discloses construction elements of the front masonry wall coated in regions of their inner side with aluminum ("aluminum" 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 9-10, 12-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saalfeld (English translation of DE 3,530,973 A1) in view of Kotrotsios (6,397,554).
9. Regarding claim 9:
 - a. Saalfeld discloses an exterior wall system including:
 - i. Rear (1, Fig. 1) and front (6) masonry walls.

- ii. Wherein elements of the front wall, only on the side facing the rear wall, are provided with a heat reflective layer (4).
 - iii. Wherein an air layer (3) is formed in a space defined between facing sides of said front and rear walls, said air layer filling a space defined between facing sides of the masonry walls, said space being otherwise free of insulating materials (a space is defined between the masonry walls and being otherwise free of insulation - the space between 4 and 2 is otherwise free of insulation).
 - iv. The examiner notes that applicant is only claiming that some space between the masonry walls is filled with air and is absent other insulating materials.
- b. Saalfeld does not expressly disclose that the air layer is stationary.
 - c. Kotrotsios discloses an exterior wall system utilizing enclosed, stationary air for insulative capabilities (4f, Fig. 13).
 - d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the wall of Saalfeld by enclosing the air layer in a stationary manner as taught by Kotrotsios, as such air is known to have insulative capabilities.



Reproduced from Kotrotsios

10. Regarding claim 10, Saalfeld/Kotrotsios as modified above discloses a wall with stationary air layer, with Saalfeld further disclosing constructional elements of bricks ("masonry" 1 & 6).
11. Regarding claim 12:
- Saalfeld/Kotrotsios as modified above discloses a wall with stationary air layer, with Saalfeld further disclosing a heat-reflective layer (4).
 - Saalfeld/Kotrotsios does not expressly disclose a heat-reflective layer that is made of a vapor-deposited material.
 - Kotrotsios discloses a vapor-deposited heat-reflective layer (3f, Fig.12; c. 4, 59-61).
 - At the time of the invention, it would have been obvious to a person of ordinary skill in the art to replace the heat-reflective layer of Saalfeld with the

vapor-deposited heat-reflective layer taught by Kotrotsios, since the layers serve the same heat-reflective function and are known equivalents in the art.

12. Regarding claim 13, Saalfeld/Kotrotsios as modified above discloses a wall with stationary air layer, with Saalfeld further disclosing construction elements of the front masonry wall coated in regions of their inner side with aluminum ("aluminum" 4).

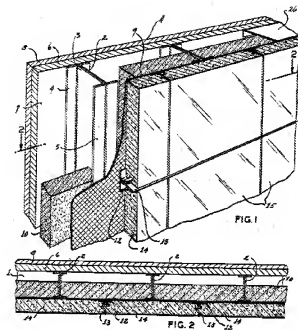
13. Regarding claim 15:

- a. Saalfeld/Kotrotsios discloses the claimed invention except for a front masonry wall with a thickness of more than 60mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a front brickwork of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

14. Regarding claim 16, Saalfeld/Kotrotsios as modified above discloses a wall with stationary air layer, with Saalfeld further disclosing construction elements of bricks ("masonry" 1 & 6) which only on their inner side are provided with a reflective coating (4).

- a. The examiner notes that the masonry elements of Saalfeld are considered façade plates, since they form a façade, since bricks are essentially plates, and since the claim provides no further structure precluding such an interpretation.

- b. The examiner further notes applicant's disclosure that various alternate construction elements could be used as would be appreciated by one skilled in the art and without departing from the scope of the invention (bricks, building blocks, and façade plates are equivalents: claims 10, 18).
- 15. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saalfeld/Kotrotsios as applied to claims 9-10, 12-13, and 15-16 above, and further in view of Huntley (2,856,766).
- 16. Regarding claim 20:
 - a. Saalfeld/Kotrotsios as modified above discloses a wall with stationary air layer.
 - b. Saalfeld/Kotrotsios does not expressly disclose static air chambers subdivided by bars that bridge the space between the front and rear masonry walls.
 - c. Huntley discloses uprights (2, Figs. 1, 2) that bridge the space between front (6) and rear (10) walls and that subdivide the space between walls into static chambers.
 - d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify wall system of Saalfeld/Kotrotsios by adding vertical bars to subdivide the chambers as taught by Huntley, in order to further limit the inter-chamber movement of air, resulting in greater thermal insulation.



Reproduced from Huntley

17. Regarding claim 21:

- a. Saalfeld/Kotrotsios/Huntley discloses the claimed invention except for a static air chamber whose thickness is 30mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a static air chamber of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP* 2144.05.

Response to Arguments

18. Applicant's arguments, see arguments, filed 05/12/09, with respect to the stationary air layer have been fully considered and are persuasive. Therefore, the rejection

has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Saalfeld in view of Kotrotsios.

19. Applicant's remaining arguments filed 05/12/09 have been fully considered but they are not persuasive.
20. Applicant argues that a reflecting material cannot be considered an "insulating material." However, Applicant clearly discloses that the reflective layer is utilized to reflect energy radiated through the rear brickwork and back towards the interior, i.e. to insulate the building from the loss of energy. As the reflective material serves to insulate, it is correctly considered an "insulating material."
21. The Examiner notes that Applicant's amendments have overcome the 112, 1st paragraph rejection regarding the insulative ability of air.
22. Applicant argues that the phrase "a space defined between facing sides of said front and rear masonry walls, the space being otherwise free of insulating materials" precludes the presence of any insulating materials other than air from between the masonry walls. However, this phrase simply defines that a space exists somewhere between the facing sides of the masonry walls, and that specific space contains only air. Saalfeld teaches this limitation, as the space between 4 and 2 exists between the masonry walls and is filled with only air.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is

(571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rich Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Branon Painter
Examiner
Art Unit 3633

/B. C. P./
Examiner, Art Unit 3633
/Basil Katcheves/
Primary Examiner, Art Unit 3635